



Montana Department of  
**ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: [www.deq.mt.gov](http://www.deq.mt.gov)

June 23, 2008

Mr. Bruce McKinley  
NorthWestern Energy  
Utopia Field Station  
40 East Broadway  
Butte, MT 59701

Dear Mr. McKinley:

Air Quality Permit #2756-05 is deemed final as of June 23, 2008, by the Department of Environmental Quality (Department). This permit is for a natural gas compressor station. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-3490

Julie Merkel  
Air Quality Specialist  
Air Resources Management Bureau  
(406) 444-3626

VW:JM  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Air Quality Permit #2756-05

NorthWestern Energy  
Utopia Field Station  
40 East Broadway  
Butte, MT 59701

July 23, 2008



## Air Quality Permit

Issued To: NorthWestern Energy  
Utopia Field Station 035  
40 East Broadway  
Butte, Montana 59701

Permit #2756-05  
Administrative Amendment (AA)  
Request Received: 02/07/08  
Department Decision on AA: 07/07/08  
Permit Final: 07/23/08  
AFS #: 051-0002

An air quality permit, with conditions, is hereby granted to NorthWestern Energy (NWE), pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Plant Location:

NWE owns and operates a natural gas compressor station and associated equipment located in the Northwest ¼ of the Southwest ¼ of Section 14, Township 33 North, Range 4 East, in Liberty County, Montana. This facility is known as the Utopia Field Station 035. The facility is located approximately 32 miles east of Shelby and about 10 miles north of Lothair. A complete listing of the permitted equipment can be found in the permit analysis.

#### B. Current Permit Action:

On February 7, 2008, the Department of Environmental Quality (Department) received an administrative amendment request from NWE for Permit #2756-04. NWE requested a name change from NorthWestern Corporation (NorthWestern) to NWE.

The current permit action is an administrative amendment pursuant to ARM 17.8.764 and changes the permittee name from NorthWestern to NWE. In addition, rule references were updated to reflect current rule references.

### Section II: Limitations and Conditions

#### A. Emission Limitations

1. Emissions from the 600-horsepower (hp) White Superior compressor engine shall be controlled with the use of a Non-Selective Catalytic Reduction (NSCR) unit and an electronic air/fuel ratio (AFR) controller. Emissions from the engine shall not exceed the following (ARM 17.8.752):

Oxides of Nitrogen (NO <sub>x</sub> )	2.64 pound per hour (lb/hr)
Carbon Monoxide (CO)	3.96 lb/hr
Volatile Organic Compounds (VOC)	1.32 lb/hr

2. NWE shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
3. NWE shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

4. NWE shall not cause or authorize emissions to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
5. NWE shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749).

B. Testing Requirements

1. NWE shall test the 600-hp White Superior compressor engine for NO<sub>x</sub> and CO, concurrently, to demonstrate compliance with the NO<sub>x</sub> and CO emission limits contained in Section II.A.1. Testing shall continue on an every-4-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.710).
2. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. NWE shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in Section I.A of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. NWE shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by NWE as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – NWE shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if NWE fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this subchapter shall be construed as relieving NWE of the responsibility for complying with any applicable federal or Montana statute, rule or standard except as specifically provided in ARM 17.8.740 *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401 *et seq.*, MCA.
- E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, the continuing validity of this permit is conditional upon the payment by NWE of an annual operation fee, as required by that section and rules adopted thereunder by the Board.

Permit Analysis  
NorthWestern Energy  
Utopia Field, Station 035  
Permit #2756-05

I. Introduction/Process Description

A. Permitted Equipment

NorthWestern Energy (NWE) owns and operates a natural gas compressor station that is known as the Utopia Field Station 035. The facility includes the following equipment:

1. (1) 600-horsepower (hp) compressor engine;
2. (1) 0.12-million British thermal unit per hour (MMBtu/hr) heater; and
3. (1) 0.015-MMBtu/hr heater.

B. Source Description

The NWE facility is located in the Northwest  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 14, Township 33 North, Range 4 East in Liberty County, Montana. The facility pumps the field gas up to the required pressure in the natural gas transmission system. Compression of the gas is accomplished using the natural gas fired compressor described above. An engine heater and an auxiliary building heater provide heat to the various station facilities.

C. Permit History

On June 22, 1993, Montana Power Company (MPC) was issued **Permit #2756-00** for the operation of their compressor station and associated equipment, located in the Northwest  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 14, Township 33 North, Range 4 East, in Liberty County, east of Shelby, Montana. The station was identified as the Utopia Field Station 035-1. The 240-Hp Ingersoll Rand compressor engine was installed in 1966 and the 600-Hp White Superior compressor engine was installed in 1983.

Since the 240-Hp Ingersoll Rand compressor engine was an existing source (it was operating at the same location prior to March 16, 1979), a Best Available Control Technology (BACT) determination was not required for the engine. For the 600-Hp White Superior compressor engine, BACT was determined to be a Non-Selective Catalytic Reduction (NSCR) Unit with an electronic Air to Fuel Ratio (AFR) controller.

The Latoka 0.25-MMBtu/hour dehydrator (reboiler) and the heaters at the Utopia Field Station 035-1 & 2 were minor sources. Based on previous determinations, BACT for these sources was determined to be no control.

On March 15, 1994, **Permit #2756-01** was issued to MPC. The permit revised the emission limitation units from grams per brake horsepower-hour (grams/bhp-hr) to pounds per hour (lb/hr). The revision provided for operational flexibility to account for varying parameters such as engine revolutions per minute (RPM), operating load (bhp), ambient air temperature, gas temperature, site, elevation, fuel gas quality, AFR, field gas conditions, etc. Also, to clarify oxides of nitrogen ( $\text{NO}_x$ ) mass emission calculations,  $\text{NO}_x$  emission limitations were identified as Nitrogen Dioxide ( $\text{NO}_2$ ). In 1993, the 600-Hp White Superior compressor engine was disconnected from service and mothballed on site. Furthermore, MPC requested that the 600-Hp White Superior compressor engine be removed from the permit. Permit #2756-01 replaced Permit #2756-00.

On March 17, 1999, **Permit #2756-02** was issued to Montana Power Gas Company (MPGC). The permit action changed the name of the facility from MPC to MPGC. The references to the company name in the permit were updated to reflect the change. In addition, the rule references were updated, and the permit was updated to reflect the current format used for writing permits. Permit #2756-02 replaced Permit #2756-01.

On January 10, 2001, **Permit #2756-03** was issued to MPC. The permit action added a 600-Hp White Superior compressor engine to the Utopia Station. This engine was originally installed at Utopia in 1983 under Permit #2756-00 and removed by request in 1993 in Permit #2756-01. MPGC also requested a facility name change from MPGC back to MPC. Permit #2756-03 replaced Permit #2756-02.

On May 31, 2001, the MPC notified the Department of Environmental Quality (Department) of a pending merger of MPC with and into Montana Power Company, LLC (MPC-LLC). Due to indications that the facility might change its name again, the Department decided to wait to change the name on the permit. On October 15, 2002, the Department received a request to change the permit from MPC-LLC to NorthWestern Corporation (NorthWestern). The current permit action updates the permit name to NorthWestern.

Further, in a letter received by the Department on September 16, 2002, NorthWestern notified the Department that NorthWestern had sold the natural gas gathering portion of the Utopia Field Station 035 to EnCana Energy Resources, Inc. (EnCana). NorthWestern requested that the 240-Hp Ingersoll Rand compressor engine, the 0.25 MMBtu/hr Lakota dehydrator, and the two 0.08 MMBtu/hr Little Giant heaters be removed from NorthWestern's permit. Furthermore, NorthWestern also requested that the Autocraft heater be correctly identified as a 0.015 MMBtu/hr heater.

This permit action modified the permit to reflect the name change from MPC to NorthWestern. In addition, the 240-Hp Ingersoll Rand compressor engine, the 0.25 MMBtu/hr Lakota dehydrator, and the two 0.08 MMBtu per hour Little Giant heaters were removed from the permit and the Autocraft heater was correctly identified as 0.015 MMBtu/hr. **Permit #2756-04** replaced Permit #2756-03.

#### D. Current Permit Action

On February 7, 2008, the Department of Environmental Quality (Department) received an administrative amendment request from NWE for Permit #2756-04. NWE requested a name change from NorthWestern to NWE.

The current permit action is an administrative amendment pursuant to ARM 17.8.764 and changes the permittee name from NorthWestern to NWE. In addition, rule references were updated to reflect current rule references. **Permit #2756-05** replaces Permit #2756-04.

#### E. Additional Information

Additional information, such as applicable rules and regulations, BACT determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

## II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

### A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source tests conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

NWE shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

### B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>
11. ARM 17.8.230 Fluoride in Forage

NWE must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from: (1) any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes; and (2) any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this rule, NWE shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. NWE will consume pipeline-quality natural gas in the fuel burning equipment, which will meet this limitation.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS-affected source because it does not meet the definition of a natural gas processing plant as defined in 40 CFR Part 60, Subpart KKK.
7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The owner or operator of any affected source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63.

40 CFR 63, Subpart HH National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HH. In determining whether NWE's facility was a 40 CFR Part 63, Subpart HH affected source, the Department compared the facility to larger facilities permitted in Montana. The Department made determinations that several of the larger facilities in Montana do not meet the definition of a major source of HAP as defined in 40 CFR Part 63, Subpart HH. Based upon the previous determinations and the size of NWE's facility, 40 CFR Part 63, Subpart HH would not apply to the NWE facility because it would not be a major source of HAPs. In addition, the NWE facility does not utilize a dehydration unit, therefore would not be subject to the area source provisions of 40 CFR 63, Subpart HH.

40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. In determining whether NWE's facility was a 40 CFR Part 63, Subpart HHH affected source, the Department compared the facility to larger facilities permitted in Montana. The Department made determinations that

several of the larger facilities in Montana do not meet the definition of a major source of HAPs as defined in 40 CFR Part 63, Subpart HHH. Based upon the previous determinations and the size of NWE's facility, 40 CFR Part 63, Subpart HHH would not apply to the NWE facility because it would not be a major source of HAPs.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. NWE was not required to submit a permit application fee for the current permit action because it is an administrative action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; and the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions which pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits – When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year (TPY) of any pollutant. NWE has the PTE more than 25 TPY of NO<sub>x</sub> and CO; therefore, a permit is required.
3. ARM 17.8.744 Montana Air Quality Permits - General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits – Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units – Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration or use of a source. NWE was not required to submit a permit application for the current permit action because this permit action is an administrative amendment. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. NWE was not required to notify the public of the current permit action because this permit action is an administrative amendment.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
  7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
  8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
  9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving NWE of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
  10. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
  11. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirements of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
  12. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
  13. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

The NWE Utopia Station is not a major stationary source because it is not listed and does not have the potential to emit more than 250 tons per year of any regulated air pollutant. This determination included emissions from EnCana's Utopia Station. Future PSD applicability determinations may also include emissions from EnCana's Utopia Station.

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 tons/year of any pollutant;
  - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area
2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2756-05 for NWE, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for any pollutant.
  - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is not subject to any current NSPS.
  - e. This facility is not subject to any current NESHAP standards.
  - f. This source is not a Title IV affected source nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that the NWE Utopia Station will be a minor source of emissions as defined under Title V. This determination included emissions from EnCana's Utopia Station. Future Title V applicability determinations may also include emissions from EnCana's Utopia Station.

### III. BACT Determination

A BACT determination is required for each new or altered source. NWE shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. However, the current permit action is an administrative action that will not increase emissions or add or alter any emitting units; therefore, a BACT analysis is not required.

#### IV. Emission Inventory

Emission Unit	Air Pollutants (tons/year)					
	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
White Superior Compressor Engine	0.22	0.22	0.01	11.56	5.78	17.34
Heaters (2)	0.00	0.00	0.00	0.06	0.01	0.01
Totals	0.22	0.22	0.01	11.62	5.79	17.35

##### White Superior Compressor Engine

Brake Horsepower: 600 bhp

Hours of operation: 8,760 hr/yr

##### PM Emissions

Emission Factor: 10 lb/1.0E06 natural gas {2-02-002-02, AFSSCC pg 32}

Control Efficiency: 0.0%

Fuel Consumption: 8,500 Btu/Hp-hr {Maximum Design}

Calculations:  $8,500 \text{ Btu/Hp-hr} * 0.001 \text{ ft}^3/\text{Btu} * 600 \text{ hp} * 8,760 \text{ hr/yr} = 44,676,000 \text{ ft}^3/\text{yr}$   
 $44,676,000 \text{ ft}^3/\text{yr} * 10 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.22 \text{ ton/yr}$

##### PM<sub>10</sub> Emissions

Emission Factor: 10 lb/1.0E06 {2-02-002-02, AFSSCC pg 32}

Control Efficiency: 0.0%

Fuel Consumption: 8,500 Btu/Hp-hr {Maximum Design}

Calculations:  $8,500 \text{ Btu/Hp-hr} * 0.001 \text{ ft}^3/\text{Btu} * 600 \text{ hp} * 8,760 \text{ hr/yr} = 44,676,000 \text{ ft}^3/\text{yr}$   
 $44,676,000 \text{ ft}^3/\text{yr} * 10 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.22 \text{ ton/yr}$

##### NO<sub>x</sub> Emissions

Emission factor: 2.0 gram/bhp-hour {BACT analysis}

Calculations:  $2.0 \text{ gram/bhp-hour} * 600 \text{ bhp} * 1 \text{ lb}/454 \text{ grams} = 2.64 \text{ lb/hr}$   
 $2.64 \text{ lb/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 11.56 \text{ ton/yr}$

##### VOC Emissions

Emission factor: 1.0 gram/bhp-hour {BACT analysis}

Calculations:  $1.0 \text{ gram/bhp-hour} * 600 \text{ bhp} * 1 \text{ lb}/454 \text{ grams} = 1.32 \text{ lb/hr}$   
 $1.32 \text{ lb/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 5.78 \text{ ton/yr}$

##### CO Emissions

Emission factor: 3.0 gram/bhp-hour {BACT analysis}

Calculations:  $3.0 \text{ gram/bhp-hour} * 600 \text{ bhp} * 1 \text{ lb}/454 \text{ grams} = 3.96 \text{ lb/hr}$   
 $3.96 \text{ lb/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 17.34 \text{ ton/yr}$

##### SO<sub>2</sub> Emissions

Emission factor: 0.002 gram/hp-hr {AP-42, Table 3.2-1}

Calculations:  $0.002 \text{ gram/hp-hr} * 600 \text{ bhp} * 0.0022 \text{ lb/gram} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 0.01 \text{ tons/yr}$

##### Heaters (2)

Fuel Consumption: 135.00 MBtu/hr

{Information from Company}

Hours of operation: 8,760 hr/yr

##### PM Emissions

Emission Factor: 5 lb/1.0E06 ft<sup>3</sup> {AP-42, Table 1.4-1}

Control Efficiency: 0.0%

Calculations:  $135.00 \text{ MBtu/hr} * 1,000 \text{ Btu/MBtu} * 0.001 \text{ ft}^3/\text{Btu} * 8,760 \text{ hr/yr} = 1,182,600 \text{ ft}^3/\text{yr}$   
 $1,182,600 \text{ ft}^3/\text{yr} * 5 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ natural gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.003 \text{ ton/yr}$

##### PM<sub>10</sub> Emissions

Emission Factor: 5 lb/1.0E06 ft<sup>3</sup> {AP-42, Table 1.4-1}

Control Efficiency: 0.0%

Calculations:  $135.00 \text{ MBtu/hr} * 1,000 \text{ Btu/MBtu} * 0.001 \text{ ft}^3/\text{Btu} * 8,760 \text{ hr/yr} = 1,182,600 \text{ ft}^3/\text{yr}$   
 $1,182,600 \text{ ft}^3/\text{yr} * 5 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ natural gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.003 \text{ ton/yr}$

**NO<sub>x</sub> Emissions**

Emission Factor: 100 lb/1.0E06 ft<sup>3</sup> {AP-42, Table 1.4-2}

Control Efficiency: 0.0%

Calculations:  $135.00 \text{ MBtu/hr} * 1,000 \text{ Btu/Mbtu} * 0.001 \text{ ft}^3/\text{Btu} * 8,760 \text{ hr/yr} = 1,182,600 \text{ ft}^3/\text{yr}$   
 $1,182,600 \text{ ft}^3/\text{yr} * 100 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ natural gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.06 \text{ ton/yr}$

**VOC Emissions**

Emission Factor: 8 lb/1.0E06 ft<sup>3</sup> {AP-42, Table 1.4-1}

Control Efficiency: 0.0%

Calculations:  $135.00 \text{ MBtu/hr} * 1,000 \text{ Btu/Mbtu} * 0.001 \text{ ft}^3/\text{Btu} * 8,760 \text{ hr/yr} = 1,182,600 \text{ ft}^3/\text{yr}$   
 $1,182,600 \text{ ft}^3/\text{yr} * 8 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ natural gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.005 \text{ ton/yr}$

**CO Emissions**

Emission Factor: 20 lb/1.0E06 ft<sup>3</sup> {AP-42, Table 1.4-2}

Control Efficiency: 0.0%

Calculations:  $135.00 \text{ MBtu/hr} * 1,000 \text{ Btu/Mbtu} * 0.001 \text{ ft}^3/\text{Btu} * 8,760 \text{ hr/yr} = 1,182,600 \text{ ft}^3/\text{yr}$   
 $1,182,600 \text{ ft}^3/\text{yr} * 20 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ natural gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.01 \text{ ton/yr}$

**SO<sub>2</sub> Emissions**

Emission Factor: 0.6 lb/1.0E06 ft<sup>3</sup> {AP-42, Table 1.4-1}

Control Efficiency: 0.0%

Calculations:  $135.00 \text{ MBtu/hr} * 1,000 \text{ Btu/Mbtu} * 0.001 \text{ ft}^3/\text{Btu} * 8,760 \text{ hr/yr} = 1,182,600 \text{ ft}^3/\text{yr}$   
 $1,182,600 \text{ ft}^3/\text{yr} * 0.6 \text{ lb}/1.0\text{E}06 \text{ ft}^3 \text{ natural gas} * 1 \text{ ton}/2,000 \text{ lb} = 0.000 \text{ ton/yr}$

**V. Existing Air Quality**

The NWE facility is located in the Northwest ¼ of the Southwest ¼ of Section 14, Township 33 North, Range 4 East, in Liberty County, Montana. Liberty County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. NWE (as MPC) previously conducted ambient air quality modeling using EPA guideline models (ISC2 and COMPLEX) for all of the compressor stations in and near Glacier, Toole, Liberty, and Pondera Counties. The meteorological data used in the models was collected at the Great Falls Airport National Weather Service station. The modeling originally submitted for Permit #2756-00 at Utopia Field Station 035 assumed annual emissions of approximately 124.6 tons of NO<sub>x</sub> and 124.6 tons of CO. The current permit action does not increase emissions from the facility and the potential emissions from the facility are less than the emissions assumed for the modeling exercise. In addition, emission controls for this station would further reduce the impacts of this facility. Therefore, the modeling analysis conducted for Permit #2756-00 still demonstrates that this facility will not cause a violation or exceedance of any state or federal ambient air quality standard.

**VII. Taking or Damaging Implication Analysis**

As required by 2-10-101 through 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

**VIII. Environmental Assessment**

The current permit action will not result in an increase of emissions from the facility; therefore, an environmental assessment is not required.

Analysis Prepared by: Julie Merkel

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